process piping. Valves 12*a* and 12*b* remain closed during this process. According to the reverse process flow depicted in FIG. 1C, fluid entering the valve assembly 10 from the process piping can flow through valves 12*a* and 16*b* into the column, returning from the column through valve 16*a*, and exiting the valve assembly through valve 12*b* back through the process piping. Valves 14*a* and 14*b* remain closed during this process. The column may be bypassed altogether according to the process flow depicted in FIG. 1D, where the liquid entering into the valve assembly from the process piping encounters opened valves 12*a*, 14*a*, 12*b* and 14*b*, exiting the valve assembly without entering the chromatography column which remains inaccessible by closing valves 16*a* and 16*b*.

Please replace the fifth full paragraph of column 3 starting at line 24 with the following paragraph:

~~FIG. 3B is an enlarged cross-sectional view through line 3B-3B of FIG. 3A;~~

Please replace the last paragraph of column 3 starting at line 36 with the following paragraph:

Referring to FIG. 2, there is shown a perspective view of the instant invention chromatography valve assembly 30. The valve assembly 30 comprises a unitarily formed valve body 32, which may be cast or machined from iron, bronze, stainless steel or aluminum, or may be molded from a suitable plastic or plastic composite material. The outer body 32 is generally that of an octahedral pyramid having a octagonal base 34, a square top surface 36, and a combination of triangular 35 and distorted hexagonal 48 side faces. The top square surface 36 is

planar and mounted thereon is the first of five manual bonnet assemblies 38, 39, 40, 41, 42 for manually controlling the operation of the underlying valves. The operation of manual bonnets in diverter valve assemblies is well known to those skilled in the art, and is explained, for example, in afore-described U.S. Pat. No. 5,273,075, the specification of which is incorporated herein by reference. It should be noted that although manual bonnet assemblies are shown, other means such as pneumatic or electrical actuators may be mounted on the outer valve body in order to control the valves, thereby eliminating the need for the manual bonnets. The manual bonnets as shown are affixed to the valve body via plates 44, each plate having four suitable screw-type fasteners 46. Extending downwardly and outwardly from each edge of the top square surface 36 of the valve body 32 is a distorted hexagonal side face 48, each side face being planar and having a manual bonnet mounted thereon. These side faces are angled at approximately 30° with respect to the octagonal base of the valve body. The reason for the particular angled mounting of the additional four bonnet assemblies 39, 40, 41, 42 has to do with valve drainage concerns, and will also be explained in detail later.

Please replace the second paragraph of column 4 starting at line 9 with the following paragraph:

Referring now to FIG. 3A, there is shown a top view of the valve assembly, minus the manual bonnets and with a partial cross-sectional view of the underlying channel network drawn in with broken lines. As can be seen in this figure, ports 50, 52, 54 and 56 are arranged at angles of approximately 90° with respect to each other on opposing ends of the octagonal base section of the valve assembly. Each port opens into a chamber in the valve assembly 30-port 50 opening

into chamber 60, port 52 opening into chamber 62, port 54 opening into chamber 64, and port 56 opening into chamber 66. Fluid entering any of the ports encounters a chamber and channels leading to at least two diverter valves. Fluid entering port 52, for example, encounters chamber 62 and channels leading to diverter valves 70 and 72. Fluid entering port 50, for example, encounters chamber 60 and channels leading to diverter valves 70, 76 and 78. The smooth and tortuous network of passageways that lead through the valve assembly connect the ports with the chambers and valves in a such a way that the valve assembly is fully drainable as will be later explained. The flow of the fluid is controlled by the diverter valves 70, 72, 74, 76, 78 and may be adjusted to permit specific flow directions which, in combination with the smooth and tortuous passageways, eliminate dead-legs from the system.

Please replace the third paragraph of column 4 starting at line 31 with the following paragraph:

Referring now to FIG. 3B, there is shown an enlarged cross-sectional view of the valve assembly through line 3B-3B of FIG. 3A. As can be seen in the figure, port 50 opens into chamber 60. A passageway 55 leading to diverter valve 76 can also be seen in this figure. Chamber 60 is connected to chamber 64 via diverter valve 78. The passageway that connects these two chamber is inclined, rising sharply before encountering diverter valve 78. The passageway that connects these two chamber is inclined, rising sharply before encountering diverter valve 78 and then falling sharply after encountering the valve. The angle of inclination 63 measured from either side of the diverter valve 78 is approximately 30°. In chamber 64, a passageway 65 leading to diverter valve 74 can be seen. Finally in this figure, port 54 can be

~~seen as opening into chamber 64.~~

Please replace the fourth paragraph of column 4 starting at line 44 with the following paragraph:

Subbd Referring now to FIG. 3C, there is shown an enlarged side elevational view of the instant invention valve assembly 30. This particular side elevational view of the instant invention valve assembly 30. This particular side elevational view is directed down port 50 which is disposed on triangular surface 35. As explained above, port 50 opens into chamber 60 which is connected by channels to diverter valves 70, 76 and 78. In this figure, diverter valves 70 and 76 can be seen on opposite sides of port 50, being disposed beneath the afore-described distorted hexagonal side faces 48. These diverter valves, as well as diverter valves 72 and 74 (not shown in this figure), are machined in the position of their drain angle which is approximately 30° as measured from the octagonal base of the valve assembly. This arrangement, coupled with the fact that valve 78 (as seen in FIG. 3B) is at a high point in the valve assembly, allows the valve assembly 30 to be fully and easily drainable. Ports 56 and 52 are also clearly visible in this figure.

A4 end

IN THE CLAIMS

Please replace claims 1, 8, 11, 14, 16, and 19 with the following claims:

Subb7 1.(AMENDED) A diverter valve assembly for use in liquid chromatography comprising:

A5

a unitarily formed valve body;

a plurality of ports in said valve body, at least one of said ports functioning as an